



# Math Resolutions, LLC

Math Resolutions, LLC  
5975 Gales Lane  
Columbia, MD 21045  
voice and fax (410) 997-9578  
WendelDRenner@home.com

RECEIVED

APR 19 2001

Technology Center 2600

April 14, 2001

Commissioner for Patents  
United States Patent and Trademark Office  
Office of Initial Patent Examination  
Customer Service Center  
Washington, DC 20231

Dear Sir,

Concerning my application 09/736,351, filed 12/15/2000, title "Radiation Therapy Dosimetry Quality Control Process", since this is a medical product I have filed with the Food and Drug Administration for clearance to market under their 510(k) process, K010225, filed on Jan 24, 2001. Usually the FDA responds in 90 days and I expect to hear from them soon. I therefore expect to begin marketing this system soon after I receive FDA clearance. It is my understanding that I will have little protection until the patent is actually granted. I am marking my main web page where I will be marketing this product with the label "U.S. Patent Pending" in the mean time (copy enclosed). I would hope some consideration can be given to a final decision soon. Thank you for your consideration.

Sincerely yours,

*Wendel Dean Renner*

Wendel Dean Renner,  
President

RECEIVED  
MAY 10 2001  
TECHNOLOGY CENTER 2800

# Welcome to Math Resolutions, LLC

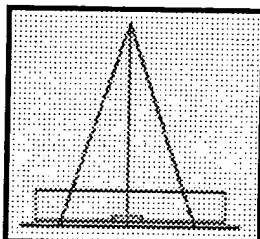
RECEIVED

APR 19 2001

## Introducing: Dosimetry Check

Technology Center 2600

### A new concept in radiation therapy quality control.



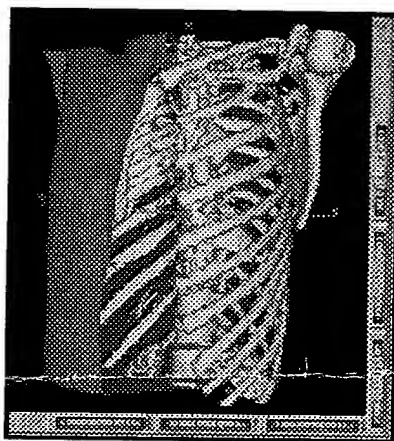
Make a "measured" picture of each field and then recalculate the dose distribution based upon those measured fields. Compare to the plan to check for any errors.

Click here [Radiation Therapy Quality Control](#) to learn about this new concept. U.S. Patent Pending.

Or use this software to simply display isodose curves on a fused image set, such as MRI.

## Introducing: System 2100

### A Radiological Image Display System.



System 2100 from Math Resolutions LLC is a *radiological image display* system that runs on Silicon Graphics Unix computers.

Click here [Image Display System](#) to learn about this advanced system.

- Image Fusion
- Solid Patient Modeling
- Generic Stereotactic Frame Support
- Outlining Tools

RECEIVED  
MAY 10 2001  
TECHNOLOGY CENTER 2600

**C++ Library:** This software package can also serve as a foundation toolkit C++ library for projects in the radiological sciences.

# Quality Control in Radiation Therapy

Inherent in any activity carried out by human beings in particular is the possibility of making mistakes. Radiation therapy presents unique problems in this regard in that radiation cannot be seen, heard, smelled, felt, or tasted. In contrast, a nurse who administers a drug can visually measure it out at the time it is administered to the patient.

Radiation on the other hand must be measured at some other time by a physicist with complex equipment and calibration processes. The plan of radiation is often computed on a computer where all aspects of the treatment delivery system must be modeled mathematically by the planning software. This modeling includes the insertion of objects into the beam such as wedges and shielding blocks. Intensity modulation may be applied and accomplished by a compensator manufactured for the purpose or by the treatment machine with a moving multi-leaf collimator. *This lengthy and complex process has multiple opportunities for errors to be committed by persons and machines.*

The standard procedures for quality control generally call for the checking of each component of the treatment planning process. It is assumed, and hoped, that when all the components are correct that the end result is correct. Yet without a feedback mechanism for the entire treatment planning and delivery process, failure to detect a problem with any one component will most likely go unnoticed.

## Program: Dosimetry Check

**Here we provide a solution to the quality control problem by providing feedback to verify the treatment plan.**

**This is done in two steps: Step 1 and Step 2.**

### More Information

CPT billing codes

Return to Home Page

*Math Resolutions, LLC*

*5975 Gales Lane, Columbia, MD 21045*

*voice and fax (410) 997-9578*

*WendelDRenner@home.com*

*© copyright 2000 by Math Resolutions, LLC*